

## ABSTRACT

This invention relates to a biospecific assay method, in which microparticles coated with the bioaffinity reactant A binding the analyte to be assayed; the sample to be  
5 analyzed, and the labelled bioaffinity reactant B are mixed. After the binding reaction the signal strength from the labelled bioaffinity reactant B bound to the  
microparticles is quantitated for the determination of the concentration of the analyte in the sample. According to  
10 the invention, such an amount of sample and microparticles is used in the assay that after binding of the analyte of the sample to the said amount of microparticles, each individual microparticle will emit such a signal strength  
as to allow the measurement of the analyte concentration  
15 over the whole range of typical analyte concentrations, and the signal strength from each microparticle is measured separately.